

**REMARKS**

Upon entry of the present Amendment the Claims under consideration remain 1-13. Applicants have hereby amended independent Claim 1 to more particularly point out that the present invention is drawn to a pressure sensor system having no orifice plates or other means inducing parasitic air flow losses. Support for the amendment is found at least at page 3, line 1, and the Abstract of the present specification. No new matter is added hereby. The Detailed Action of 10 August 2005 will now be addressed with reference to the headings and any paragraph numbers therein.

**Claim Rejections -35 USC §102**

Per paragraph 1 of the Detailed Action, page 2, Claims 1, 4, 6-10, and 12-13 stand rejected as anticipated by Nelson et al., U.S. Patent 6,439,061 (hereinafter "Nelson").

Nelson generally describes an air flow measurement apparatus based on a plate structure having apertures therein. Applicants have, by their original specification and the present amendment, made clear that the present invention is limited to a system excluding devices whose structures induce parasitic air flow losses, such as Nelson. After a thorough review, Applicants have found no teaching of Nelson meeting the spirit, teachings, or claim limitations of the present invention.

It is noted that the apertured-plate structure of Nelson is likely to induce turbulence and parasitic losses, makes no mention of being locatable in a high velocity air flow area and contains no teaching with respect to an apparatus available for fitting within a blower motor flow ring (as in Claims 4 and 10). The apertured plate structure of Nelson is more likely to be found in a filter slot or other location across the air stream (col. 1, line-65). In view of the foregoing, it is respectfully



requested that the present rejections be withdrawn.

Certain inaccuracies are noted in the Examiner's characterization of Nelson's structures. The "flow ring 24" of Nelson pointed to by the Examiner (page 3, line 1 of the Detailed Action), is not a blower motor flow ring, but is the frame structure of the measuring apparatus itself (col. 7, line 7). The "clip 38" pointed to by the Examiner (page 3, line 8 of the Detailed Action), is not an attachment clip for fastening a simple probe tube to a blower motor flow ring (per Claim 10), but is a connector/pressure fitting (Col. 7, line 13) arranged to accept a differential manometer.

Especially when considered as a whole, rather than as a collection of limitations, it is clear that the invention as presently claimed defines over the apparatus as taught by Nelson and offers improvements in the art. Thus, independent Claim 1 should be considered allowable. Claims 4, 6-10, and 12-13, as dependent from the independent Claim 1 and incorporating all limitations therein, are also allowable.

#### **Claim Rejections -35 USC §103**

Per paragraph 2 of the Detailed Action, page 4, Claims 2-5 and 11 stand rejected as obvious over Nelson in view of Kettler, U.S. Patent 6,079,627 (hereinafter "Kettler"). Applicant herewith incorporates the above discussion concerning the inapplicability of Nelson's teachings with respect to the presently claimed invention.

Generally, Kettler teaches a flow measuring apparatus contained in its own conduit (ref. no. 1, Fig. 1) and having two measurement channels (4, 6) each containing a pair of straight probe transducers (10a, 10b and 12a, 12b). The flow channels (4, 6) are controlled by independent flow damping apparatuses (16, 18) in



order to obtain accurate measurements within the transducer's sensing ranges (see col. 4, line 33, and transducer discussion at col. 1, lines 42-67). Therefore, Kettler, like Nelson and unlike the present invention, also teaches a system which places flow restrictors in the path of HVAC air flow resulting in significant parasitic losses.

Thus, the references, either singly or in combination, do not provide a suggestion to arrive at the elegantly simple solution for HVAC control as set forth in the presently claimed invention. Therefore, it is respectfully requested that the present rejections be withdrawn.

#### **Examiner Interview Summary**

A telephonic interview was conducted between Examiner Andre Allen and Applicants' attorney, Roland W. Norris, on 07 November 2005. A proposed amendment of the type made hereby was discussed. The Examiner indicated that while the present amendment can be entered and appeared to define over the art of record, no conclusion of allowability could be reached because a supplemental search of the prior art would need to be conducted due to the nature of the amendment. Applicants' attorney thanks the Examiner for the courtesy shown him during their interview.

#### **Request for Teleconference with the Examiner**

Differences between the present invention and the cited references involving patentable subject matter are now believed by the Applicants to be properly defined in the present Claims. The Examiner is requested to call Applicants' attorney (per the provisions of M.P.E.P. § 713) to discuss any further problems or suggest solutions in defining the present invention in order to expedite the case towards allowance before issuing a further Office Action.



**Conclusion**

For all the foregoing reasons, the Claims as presently amended are believed to be allowable over the art of record. A notice to that effect is earnestly solicited.

The Examiner is invited to call Applicant's undersigned attorney should the Examiner feel that any other issues remain after entry of the present amendment.

Favorable consideration is requested.

Respectfully submitted,



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